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The Art of Knowledge.

RH401/EX401 Red Hat Enterprise Deployment and Systems Management With Exam

Course Length
5 Days
TE1506_20100513

Course Description: Red Hat Enterprise Deployment and Systems Management (RH401) is a four-day lab-based course that explores the concepts and methods necessary for successful large-scale deployment and management of Red Hat Enterprise Linux systems. Experienced system administrators learn how to implement and manage Red Hat Enterprise Linux deployments efficiently and effectively, in ways that make their systems manageable by a team of administrators. Central to the course is hands-on training in the use of the Red Hat Network Satellite Server for deployment and provisioning of Red Hat Enterprise Linux systems. By the end of this course, students will have built their own RPM packages and will have used Subversion to make changes to scripts. The EX401 exam is administered on the 5th day.

Who Should Attend: RH401 is aimed at experienced Linux system administrators responsible for the planning, deployment, and management of Red Hat Enterprise Linux systems. It is also for Red Hat Certified Engineers (RHCE®) who want to earn Certification of Expertise, Red Hat Certified Datacenter Specialist (RHCDS®), or Red Hat Certificate Architect (RHCA®).

Prerequisites: Students should have Red Hat Certified Engineer (RHCE) certification or equivalent experience.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Build their own RPM packages and use Subversion to make changes to scripts.
- Implement and manage Red Hat Enterprise Linux deployments efficiently and effectively in ways that make the entire enterprise deployment manageable by a team.

Course Outline:

Unit 1 - Essential System Management
Goals of Enterprise system management
Standardization, centralization, and scalability
Provisioning and automation

Unit 2 - Installing a Red Hat Network Satellite Server
Introduction to RHN Satellite - features, prerequisites
Installing Satellite Server software
Understanding software channels and entitlements
Importing channel content into a Satellite Server

Unit 3 - Red Hat Network Organization
Organization management and trust relationships
Managing user accounts
Assigning user roles (security)
Managing system groups

Unit 4 - Managing Changes with Revision Control
Introducing revision control concepts
Basic Subversion repository administration
Using Subversion to manage revisions

Unit 5 - Red Hat Network Client Configuration
Secure communication with SSL
Red Hat Network registration
Creating and using activation keys
Registration automation with bootstrap.sh
Troubleshooting RHN registration

Unit 6 - Red Hat Network Software Management
Software channel relationships
Cloning existing software channels
Managing custom software channels
Notifying clients of changes: managing errata

Unit 7 - Building RPMs
Building open source software
Using RPM macros
Writing custom spec files
Using rpmbuild to create RPMs
Signing packages for security

Unit 8 - RHN Application Programmer Interface
Uses for Red Hat Network API
Basic RHN API program structure
Sample programs

Unit 9 - Configuration File Management with Red Hat Network
Managing configuration channels
Configuration file macros
Configuration file management using command-line tools

Unit 10 - Provisioning with Kickstart
Anaconda kickstart options
Building a provisioning environment
Using Cobbler for provisioning

Unit 11 - Virtual Machine Management
Virtual host/virtual platform entitlements
Controlling Xen guests using RHN
Red Hat Network management of Xen virtual machines

Unit 12 - RHN Satellite Server Administration
High-availability options
Embedded database management
Certificate management
Changing from disconnected to connected operation
Inter-satellite synchronization (ISS)
Exporting software channels
Troubleshooting

Unit 13 - Red Hat Network Proxy Server
RHN proxy server installation
Configuring a client to use a RHN proxy server
Managing software with RHN package manager